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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,178	07/08/2003	Douglas A. Soller	J-3862	1887
28165	7590	07/20/2006	EXAMINER	
S.C. JOHNSON & SON, INC. 1525 HOWE STREET RACINE, WI 53403-2236			GUIDOTTI, LAURA COLE	
			ART UNIT	PAPER NUMBER
			1744	

DATE MAILED: 07/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/615,178

Applicant(s)

SOLLER ET AL.

Examiner

Laura C. Guidotti

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2,7-10,12-20,24-36,45 and 46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-20,24-36,45 and 46 is/are allowed.
- 6) ☒ Claim(s) 2,7-10 and 12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 2, 7-10, and 12 are objected to because of the following informalities:

Claim 2 line 13, the word "at" is repeated. It is believed that this is a typographical error and the first occurrence of "at" is meant to be "and."

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 2, 10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marquart et al., USPN 4,441,228 in view of Policicchio et al., US 2003/0126710.

Marquart et al. disclose the claimed invention including a brush head comprising a plurality of layers (20, 42) of a water-degradable material (paper; Column 3 Lines 59-61) positioned on top of each other to form a stack of such layers (see Figures), wherein at least three of the layers are formed from a sheet of the water-degradable material that has been folded back upon itself in switchback accordion fashion along a first fold line a first time and then again back upon itself in an opposed direction along a second fold line a second time (see Figures; Column 2 Line 62 to Column 3 Line 2), and wherein the head is configured such that a first end of the stack is held together by the brush head (15, 43) and an opposed end of the stack can spread out between at least some of the layers of the stack and wherein the first fold line is located at the opposed end of the stack (as shown in Figures 1-4). Water-dissolvable attachment means such as adhesive, stitching, or ultrasonic welding have been applied to the brush head adjacent the first end of the stack while allowing at least a part of the opposed end of the stack to spread out between layers (see Figures; Column 2 Lines 45-51).

Regarding claim 10, the plurality of the layers are formed with bristle segments adjacent the opposed end of the stack (see Figures). Regarding claim 12, the brush head

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comprises between four and forty layers of such water degradable material in the stack (see Figures). Marquart et al. further discloses that the plurality of layers and at least one portion of the brush head are held together by “stitching, tacking, adhesive bonding, ultrasonic welding, or the like” (Column 2 Lines 49-51), however does not include forming a pressure bond.

Policicchio et al. teach a mop that comprises a plurality of layers (207) that are held together with at least a portion of the brush head (200; Figure 2) by bonding means that includes “heat bonds, pressure bonds, ultrasonic bonds, dynamic mechanical bonds, or any other suitable bonding means or combinations of these bonding means (paragraph 357).

It would have been obvious for one of ordinary skill in the art to substitute the bond(s) of Marquart et al. formed by stitching, tacking, adhesive bonding, or ultrasonic welding, for a pressure bond, such as Policicchio teaches, in order to capably bond a plurality of layers to a brush head.

3. Claims 2, 10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allaire et al., USPN 3,827,099 in view of Policicchio et al., US 2003/0126710.

Allaire et al. disclose the claimed invention including a brush head comprising a plurality of layers (22) of a water-degradable material (paper; Column 3 Lines 15-17) positioned on top of each other to form a stack of such layers (20), wherein at least three of the layers are formed from a sheet of the water-degradable material that has been folded back upon itself in switchback accordion fashion along a first fold line a first time and then again back upon itself in an opposed direction along a second fold line a

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second time (Figure 5; Column 2 Lines 61-65), and wherein the head is configured such that a first end of the stack is held together by the brush head (18) and an opposed end of the stack can spread out between at least some of the layers of the stack and wherein the first fold line is located at the opposed end of the stack (as shown in Figure 5). A water dissolvable attachment means (glue, which is an adhesive, stitches or staple; Column 2 Lines 34-37 states that glue, stitches, and staples are known manners of securing paper strips to a support) has been applied to the brush head adjacent the first end of the stack to assist in holding that end of the stack together while still allowing at least a part of the opposed end of the stack to be spread out between layers (Column 2 Lines 65-66; Figure 5). Regarding claim 10, the layers are formed with bristle segments adjacent the opposed end of the stack (Column 2 Lines 66-68; see Figures). Regarding claim 12, the brush head comprises between four and forty layers of material in the stack (see Figure 5). Allaire et al. do not include forming a pressure bond.

Policicchio et al. teach a mop that comprises a plurality of layers (207) that are held together with at least a portion of the brush head (200; Figure 2) by bonding means that includes "heat bonds, pressure bonds, ultrasonic bonds, dynamic mechanical bonds, or any other suitable bonding means or combinations of these bonding means (paragraph 357).

It would have been obvious for one of ordinary skill in the art to substitute the bond(s) of Allaire et al. formed by gluing, stitching, stapling, or sewing, for a pressure bond, such as Policicchio teaches, in order to capably bond a plurality of layers to a brush head.

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4. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allaire et al., USPN 3,827,099 and Policicchio et al., US 2003/0126710, as applied to claim 2, in view of Tames, USPN 4,523,347.

Allaire et al. and Policicchio et al. disclose all elements above, however do not disclose that the brush head has been at least partially impregnated with a chemical composition.

Tames discloses a disposable floor mop that comprises a plurality of layers of a water-degradable material, such as paper, being impregnated with a chemical composition that is a surfactant such as soap or detergent that does not include water (Column 2 Lines 44-46; Column 4 Lines 1-3; Column 1 Lines 20-29).

It would have been obvious for one of ordinary skill in the art to modify the paper layers of Allaire et al. and Policicchio to be impregnated with a chemical composition, as Tames teaches, so that the user has no need for storing cleaning chemicals separate from the mop.

***Allowable Subject Matter***

5. Claims 13-20, 24-36, and 45-46 are allowed.

6. The following is a statement of reasons for the indication of allowable subject matter: None of the prior art made of record includes a handle having an internal cavity, a lower opening, a radial opening, an actuator having a projection, a connecting rod linked to the projection, a jaw linked to the rod, two positions that clamp a brush head, and further a handle having teeth that extend radially into the cavity and a connecting rod that has radially outwardly extending teeth.

Furthermore, none of the prior art of record includes a first end of a brush head comprising of a plurality of layers of a water-degradable material positioned on top of each other to form a stack of layers, wherein at least two of the layers are formed from a sheet of the water-degradable material that has been folded back upon itself, and wherein the head is configured such that a first end of the stack is held together and an opposed end of the stack can spread out between at least two of the layers, and having an axially extending notch or wherein top and bottom layers of the stack are not impregnated with a surfactant while a plurality of layers between the top and bottom layers are impregnated with a surfactant.

Furthermore, none of the prior art of record includes a wand for holding a brush head, the wand including a handle with an internal cavity, a lower opening, a radial opening, an actuator having a projection extending through the radial opening, a connecting rod linked to the projection which is mounted in the handle cavity, and two jaws linked to the rod which extend out the handle lower opening, and wherein the wand has been attached to a separately formed extension, the extension having a hangar hole or wherein the jaw has an axially extending tongue projection suitable to interfit with a brush head having an axial notch.

### ***Response to Arguments***

7. Applicant's arguments with respect to claim 2 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***



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8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura C. Guidotti whose telephone number is (571) 272-1272. The examiner can normally be reached on Monday-Thursday, 7:30am - 5pm, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on (571) 272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LCG  
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GLADYS JP CORCORAN  
SUPERVISORY PATENT EXAMINER